

**PCT**

NOTIFICATION DE TRANSMISSION DES COPIES  
DE LA TRADUCTION DU RAPPORT PRÉLIMINAIRE INTERNATIONAL  
SUR LA BREVETABILITÉ (CHAPITRE I OU CHAPITRE II  
DU TRAITE DE COOPERATION EN MATIERE DE BREVETS)

(règles 44bis.3.c) et 72.2 du PCT)

**BREVETABLE**  
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| Date d'expédition (jour/mois/année)<br>02 mars 2006 (02.03.2006) |   |
| Référence du dossier du déposant ou du mandataire<br>B 14238 EE  | NOTIFICATION IMPORTANTE   |
| Demande internationale n°<br>PCT/FR2004/050049                   | Date du dépôt international (jour/mois/année)<br>06 février 2004 (06.02.2004) |
| Déposant<br>COMPAGNIE GENERALE DES MATIERES NUCLEAIRES etc       |   |

1. Transmission de la traduction au déposant.



Le Bureau international transmet ci-joint copie de la traduction en langue anglaise du rapport préliminaire international sur la brevetabilité (chapitre I).



Le Bureau international transmet ci-joint copie de la traduction en langue anglaise du rapport préliminaire international sur la brevetabilité (chapitre II).

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Aucun

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Il est rappelé au déposant que, lorsqu'une traduction de la demande internationale doit être remise à un office élu, cette traduction doit comporter la traduction de toute annexe du rapport préliminaire international sur la brevetabilité (chapitre II).

Il appartient au déposant d'établir la traduction en question et de la remettre directement à chaque office élu intéressé dans le délai applicable (règle 74.1). Voir le volume II du Guide du déposant du PCT pour de plus amples renseignements.

|  |   |
|--|---|
| Bureau international de l'OMPI<br>34, chemin des Colombettes<br>1211 Genève 20, Suisse | Fonctionnaire autorisé<br>Beate Giffo-Schmitt |
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# TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS

## PCT

### RAPPORT PRÉLIMINAIRE INTERNATIONAL SUR LA BREVETABILITÉ

(chapitre I du Traité de coopération en matière de brevets)

(règle 44bis du PCT)

|  |   |  |
|--|---|--|
| Référence du dossier du déposant ou du mandataire<br>B 14238 EE  | <b>POUR SUITE À DONNER</b> Voir le point 4 ci-dessous                                   |  |
| Demande internationale no.<br>PCT/FR2004/050049  | Date du dépôt international ( <i>jour/mois/année</i> )<br>06 February 2004 (06.02.2004) | Date de priorité ( <i>jour/mois/année</i> )<br>10 February 2003 (10.02.2003) |
| Classification internationale des brevets (8 <sup>e</sup> édition, sauf indication d'une #dition ant#rieure)<br>Voir les informations pertinentes dans le formulaire PCT/ISA/237 |   |  |
| Déposant<br>COMPAGNIE GENERALE DES MATIERES NUCLEAIRES   |   |  |

|    |   |   |
|----|---|---|
| 1. | Le présent rapport préliminaire international sur la brevetabilité (chapitre I) est établi par le Bureau international au nom de l'administration chargée de la recherche internationale selon la règle 44bis.1.a).   |   |
| 2. | Ce RAPPORT comprend un total de 7 feuilles, y compris la présente feuille de couverture.<br><br>Dans les feuilles jointes, toute référence à l'opinion écrite de l'administration chargée de la recherche internationale doit être entendue, à la place, comme une référence au rapport préliminaire international sur la brevetabilité (chapitre I). |   |
| 3. | Le présent rapport contient des indications relatives aux points suivants :   |   |
|    | <input checked="" type="checkbox"/> Cadre n° I  | Base de l'opinion   |
|    | <input checked="" type="checkbox"/> Cadre n° II   | Priorité  |
|    | <input type="checkbox"/> Cadre n° III   | Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle  |
|    | <input type="checkbox"/> Cadre n° IV  | Absence d'unité de l'invention  |
|    | <input checked="" type="checkbox"/> Cadre n° V  | Déclaration motivée selon l'article 35.2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration |
|    | <input type="checkbox"/> Cadre n° VI  | Certains documents cités  |
|    | <input type="checkbox"/> Cadre n° VII   | Certaines irrégularités relevées dans la demande internationale   |
|    | <input type="checkbox"/> Cadre n° VIII  | Certaines observations relatives à la demande internationale  |
| 4. | Le Bureau international communiquera le présent rapport aux offices désignés conformément aux règles 44bis.3.c) et 93bis.1 mais pas avant l'expiration du délai de 30 mois à compter de la date de priorité (règle 44bis.2), sauf si le déposant a présenté une requête expresse à cet égard en vertu de l'article 23.2).                             |   |

|   |  |
|---|--|
|   | Date d'établissement du présent rapport<br>22 February 2006 (22.02.2006) |
| Bureau international de l'OMPI<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Fonctionnaire autorisé<br><br>Beate Giffo-Schmitt                        |
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PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

Translation

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) See Form PCT/ISA/210

Applicant's or agent's file reference  
Form PCT/ISA/220

FOR FURTHER ACTION  
See paragraph 2 below

International application No.  
PCT/FR2004/050049

International filing date (day/month/year)  
06.02.2004

Priority date (day/month/year)  
10.02.2003

International Patent Classification (IPC) or both national classification and IPC  
G21C19/48

Applicant

COMPAGNIE GENERALE DES MATIERES NUCLEAIRES

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input checked="" type="checkbox"/> | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/

EP

Date of completion of this opinion

Authorized officer

Facsimile No.

Telephone No.

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## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/050049

Box No. I

Basis of the report

1. With regard to the language, this opinion has been established on the basis of:
  - ☐ the international application in the language in which it was filed
  - ☐ the translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed
    - ☐ filed together with the international application in electronic form
    - ☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/050049

Box No. II

Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/050049

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

## 1. Statement

Novelty (N)

Claims 1-22

YES

Claims

NO

Inventive step (IS)

Claims 1-22

YES

Claims

NO

Industrial applicability (IA)

Claims 1-22

YES

Claims

NO

## 2. Citations and explanations:

1. In the present report, reference is made to the following document:

D1: PATENT ABSTRACTS OF JAPAN, vol. 013, no. 049  
(C-565), 3 February 1989 (1989-02-03) & JP 63  
243232 A (ISHIKAWAJIMA HARIMA HEAVY IND CO LTD)  
11 October 1988 (1988-10-11).

2. Document D1, which is considered to be the most relevant prior art, describes a method for capturing ruthenium present in a gaseous effluent, wherein the ruthenium is trapped as RuO<sub>4</sub> in a column containing an adsorbent material such as a silica gel, a zeolite or polyethylene.

The subject matter of independent claim 1 differs from the above in that an alkylene glycol polymer and/or an alkylene glycol copolymer, wherein the alkylene(s) has (have) 2 to 6 carbon atoms, is used to trap the ruthenium.

- 2.1 It follows that the subject matter of claim 1 is novel (PCT Article 33(2)).

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/050049

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

The problem that the present invention is intended to solve can therefore be considered to be that of providing a material that is close to polyethylene and has enhanced ruthenium adsorption properties.

- 2.2 The solution to this problem, as proposed in claim 1 of the present application, is considered to involve an inventive step (PCT Article 33(3)), for the following reasons:

The polymer or copolymer is capable of trapping RuO<sub>4</sub> because it comprises one or more -OH reducing groupings. Moreover, it promotes the adsorption and limits the desorption of RuO<sub>4</sub>. As a result, the RuO<sub>4</sub> surface dwell time is long enough for said RuO<sub>4</sub> to be reduced.

What is more, said polymer or copolymer is advantageous in that it can, by virtue of its wetting properties, be readily deposited in thin layers on a substrate, thereby providing enhanced properties in terms of operative area and head loss in comparison with the prior art substances.

3. Similarly, the subject matter of claim 11, which relates to a ruthenium recovery cartridge that includes a substrate on which is deposited an alkylene glycol polymer and/or an alkylene glycol copolymer, wherein the alkylene(s) has (have) 2 to 6 carbon atoms, is novel and is considered to involve an inventive step (PCT Article 33(2) and